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NINTH
ANNUAL REPORT

OF THE

SCHOOL MEDICAL OFFICER

TO

The Education Committee

OF THE

SALOP COUNTY COUNCIL.

1916.

JAMES WHEATLEY, M.D., D.P.H.

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Medical Staff.

School Medical Officer :

JAMES WHEATLEY, M.D., D.P.H.

Medical Inspectors :

AUGUSTE BOYES, M.B., Ch. B.

MARGARET LOGAN KIRKWOOD, M.B., Ch. B.

(Resigned 31st May, 1916).

To the Chairman and Members of the Salop Education Committee.

LADIES AND GENTLEMEN,

I beg to present my ninth Annual Report as Medical Officer to the Salop Local Education Authority.

In accordance with instructions of the Board of Education and of the Education Committee, the report is cut down to the smallest possible dimensions compatible with the maintenance of due continuity.

Matters of great general interest which have been repeated in past reports are this year omitted, and the remarks are almost entirely confined to the actual work of the year.

Although the statistics are much curtailed, there is all the material in the office for instituting full inquiries at any future time.

The importance of medical inspection has been greatly emphasized by the war, and it is generally felt that we cannot as a nation afford to allow children to grow up with serious and crippling defects that can be prevented or remedied.

At the present time it is impossible, owing amongst other things to the shortage of medical practitioners and nurses, to extend the present arrangements for inspection and treatment, but it is important that the necessity for such extensions and improvements should be fully recognised.

The improvements most urgently needed are the provision of centres for treatment particularly for eye, throat and teeth defects, the provision for more complete and more frequent medical inspection, and the extension of nursing to all schools.

Unfortunately, owing to the resignation of one of the medical inspectors and the impossibility of completely filling her place, it has not been possible to carry out the inspection for the whole county as in previous years.

I am, Ladies and Gentlemen,

Your obedient Servant,

JAMES WHEATLEY,

County Buildings,
May, 1917.

County Medical Officer of Health
and School Medical Officer.

AREA COVERED BY THE SALOP LOCAL EDUCATION AUTHORITY, NUMBER OF SCHOOLS, DEPARTMENTS, AND CHILDREN ON REGISTER.

The area covered by the Salop Education Authority comprises 858,277 acres; and had a population at the 1911 census of 201,673. It is co-terminous with the Administrative County with the exception that the Borough of Shrewsbury is not included. The number of Schools is 294, comprising 358 departments. The number of children on the registers necessarily varies from time to time to some extent. On November 24th, 1916, it was 33,364.

HYGIENIC CONDITION OF SCHOOLS.

Structural alterations for the improvement of health conditions have been limited mostly to matters urgently required.

There are many improvements that should be effected as soon as a suitable opportunity arises. In the meantime special attention should be paid to maintaining the premises in as good a state as possible with regard to cleanliness, ventilation and general care.

The limitations put upon capital expenditure in the improvement of schools, make it all the more necessary that every effort should be made by managers, teachers, and school cleaners in this direction.

ARRANGEMENTS MADE FOR MEDICAL INSPECTION.

The general arrangements described in my reports for 1909 and 1912 have continued throughout the year.

The resolution of the County Council dated 25th July, 1914, to appoint a third inspector, has not been carried into effect. In consequence the examination at the intermediate age group has not been carried out, nor has the examination of mentally defective children been done in the systematic and thorough manner that was intended.

It has not even been possible to undertake the full amount of inspection made in 1915, owing to the resignation of Dr. Kirkwood in May. It was found impossible to fill the vacancy completely, but the Committee was fortunate in being able to secure the services of Miss Jane Boyes, L.R.C.P., L.R.C.S., to undertake two or three days' inspection a week.

Sixty-eight schools, with 4,900 children on the registers were not inspected systematically, although a considerable number of them were visited by the School Medical Officer and the urgent cases dealt with.

SCHOOL NURSES.—Sixty-nine nurses have been employed in connection with 197 school departments; 57 of these nurses are working for Associations connected with the Shropshire Nursing Federation; 6 are nurses employed by other Associations or by private persons; 2 are working on their own account, and four are employed by the Lady Forester Trust in the Borough of Wenlock.

The number of children in schools provided with nurses is now 19,077, an increase of 3,318 since 1915.

On the whole the scheme has worked satisfactorily and has proved very beneficial.

VOLUNTARY HELPERS.—(see remarks page 8, report for 1914). In addition to the list given, the following schools are without helpers:—Hopton Wafers, Ightfield, Lineal and Wombridge C.E.

TEACHERS, ATTENDANCE OFFICERS AND SCHOOL ATTENDANCE.—(see page 9, report for 1914).

There has, in some localities, been a considerable falling off in the regularity of school attendance, possibly due to absence of fathers of families or in some instances to decreased efficiency in school attendance work, and to a feeling that in war time the attendance of children at school should not be unduly pressed. It might be thought that this has little or no bearing upon the health of the children. On the contrary, investigation into the condition of absentees amongst the poorest classes have convinced me that regular school attendance has a very marked beneficent influence upon the public health. Attendance at school ensures at least a partial daily cleansing, and some attempt at decency and cleanliness of clothing. I am convinced that the greatest influence in promoting personal cleanliness amongst children is regular school attendance, and I am inclined to attribute a considerable part of the improvement of public health during the last 30 years to the greater cleanliness brought about by school attendance and the habits thus formed. Consequently I view with considerable apprehension the laxity as regards attendance that exists in some districts at the present time. It must be remembered that it is just the children who most need supervision that are kept away when attendance is not enforced, and a falling off of 10 per cent. in the attendance may mean that almost all the children of this class are kept away. As a public health measure of great importance, I would urge the desirability of enforcing attendance by every means available.

Dr. Boyes says that bad attendance was particularly noticeable in the neighbourhood of the military camps, where the opportunities for children to earn money are greatly increased.

PRESENCE OF PARENTS AT INSPECTIONS AND THEIR CO-OPERATION.—(advantages of, see page 10, report 1914).

INTERFERENCE WITH ROUTINE SCHOOL WORK AND THE ARRANGEMENTS FOR CORRELATION OF THE SCHOOL AND PUBLIC HEALTH MEDICAL SERVICES are as described in the 1914 report.

EXTENT AND SCOPE OF THE MEDICAL INSPECTION CARRIED OUT IN THE YEAR 1916.

With the exception of a number of schools which were not inspected (see page 3) full systematic examinations were made of children age 12, and all entrants over 5; children under 5 were examined superficially. In addition all cases thought to be defective by the teachers were examined and all children found defective on previous inspections.

The special cases referred to in Table II. include both those brought to the notice of the Medical Inspectors by the teachers, and children under 5 years of age.

The number of re-examinations showed little falling off on that of last year. Re-examinations now form a considerable part of the inspection.

In the Borough of Wenlock the first systematic inspection is made on entry and not at the age of 5.

TABLE I.

NUMBER OF CHILDREN INSPECTED 1st JANUARY, 1916, TO 31st DECEMBER, 1916.

A—" CODE " GROUPS.

Age.	Entrants.						Leavers.					
	3	4	5	6	Other ages.	Total.	12	13	14	Other ages.	Total.	Grand Total.
Boys	93	303	1162	422	230	2210	1528	242	6	..	1776	3986
Girls	60	275	1100	451	168	2054	1465	94	1	2	1562	3616
Totals ..	153	578	2262	873	398	4264	2993	336	7	2	3338	7602

B—GROUPS OTHER THAN " CODES."

	Special Cases.	Re-Examinations (i.e., No. of Children Re-Examined).
Boys	403	2173
Girls	481	2085
Totals ..	884	4258



TABLE II.—RETURN SHOWING THE PHYSICAL CONDITION OF CHILDREN INSPECTED.

CONDITION.	Inspection age 5.				Inspection age 12.				Total.				Special Cases.		
	Boys.	Girls.	Total.	Per cent.	Boys.	Girls.	Total.	Per cent.	Boys.	Girls.	Total.	Per cent.	B.	G.	Total.
Total Inspected.. ..	1880	1793	3673	..	1776	1562	3338	..	3656	3355	7011	..	733	742	1475
<i>Clothing :—</i>															
Satisfactory	1690	1645	3335	90.8	1613	1446	3059	91.6	3303	3091	6394	91.2	..	..	..
Unsatisfactory	190	148	338	9.2	163	116	279	8.3	353	264	617	8.7	3	3	6
<i>Footgear :—</i>															
Satisfactory	1732	1662	3394	92.4	1621	1432	3053	91.4	3353	3094	6447	91.9	..	..	..
Unsatisfactory	148	131	279	7.6	155	130	285	8.5	303	261	564	8.0	1	1	2
<i>Cleanliness of Head :—</i>															
Clean (i.e., no nits or pediculi)	1644	1044	2688	73.2	1651	891	2542	76.1	3295	1935	5230	74.6	—	—	..
Nits only	167	628	795	21.6	102	608	710	21.2	269	1236	1505	21.4	18	108	126
Pediculi	69	121	190	5.2	23	63	86	2.5	92	184	276	3.9	24	37	61
<i>Cleanliness of Body :—</i>															
Clean	1744	1678	3422	93.2	1681	1488	3169	94.9	3425	3166	6591	94.0	..	..	..
Dirty	130	111	241	6.6	87	67	154	4.6	217	178	395	5.6	5	..	5
Pediculi present	6	4	10	.2	8	7	15	.4	14	11	25	.3	6	2	8
<i>Nutrition :—</i>															
Excellent	268	236	504	13.7	185	207	392	11.7	453	443	896	12.7	6	6	12
Normal	1440	1385	2825	76.9	1448	1231	2679	80.0	2888	2616	5504	78.5	..	..	..
Below normal	170	171	341	9.2	140	123	263	7.8	310	294	604	8.6	9	8	17
Bad	2	1	3	.08	3	1	4	.11	5	2	7	.09	..	..	..
<i>Nose and Throat :—</i>															
No defect	919	918	1837	50.0	1086	905	1991	59.6	2005	1823	3828	54.6	..	..	..
Mouth breathers	147	77	224	6.1	74	54	128	3.8	221	131	352	5.0	20	15	35
Tonsils : slightly enlarged	714	662	1376	37.4	564	545	1109	33.2	1278	1207	2485	35.4	90	70	160
Tonsils : much enlarged	103	105	208	5.6	63	65	128	3.8	166	170	336	4.7	18	47	65
Adenoids : slight	323	278	601	16.1	88	74	162	4.8	411	352	763	10.8	52	42	94
Adenoids : marked	42	32	74	2.0	15	18	33	.9	57	50	107	1.5	12	19	31
<i>Enlarged Cervical Glands :—</i>															
Slight	922	849	1771	48.2	398	263	661	19.8	1320	1112	2432	34.7	19	15	34
Bad	22	32	54	1.4	17	16	33	.9	39	48	87	1.2	5	5	10
<i>External Eye Disease :—</i>															
No disease	1848	1751	3599	98.0	1727	1507	3234	96.8	3575	3258	6833	97.4	..	..	..
Blepharitis	18	26	44	1.2	33	37	70	2.0	51	63	114	1.6	8	9	17
Conjunctivitis	7	4	11	.3	6	7	13	.3	13	11	24	.3	6	6	12
Corneal opacities	2	4	6	.16	5	8	13	.3	7	12	19	.2	3	4	7
Other disease.. ..	7	13	20	.5	6	6	12	.3	13	19	32	.4	12	7	19
<i>Other Disease :—</i>															
No disease	1850	1761	3611	98.3	1754	1551	3305	99.0	3604	3312	6916	98.6	..	..	..
Obstruction : R.	4	4	8	.2	3	2	5	.14	7	6	13	.18	2	..	2
Obstruction : L.	5	7	12	.3	3	3	6	.17	8	10	18	.2	..	1	1
Otorrhoea : R.	14	15	29	.7	11	3	14	.4	25	18	43	.6	5	5	10
Otorrhoea : L.	19	17	36	.9	11	5	16	.4	30	22	52	.7	5	5	10
Other disease.. ..	1	..	1	.02	2	1	3	.08	3	1	4	.05	1	1	2

TABLE II.—RETURN SHOWING THE PHYSICAL CONDITION OF CHILDREN
INSPECTED—continued.

CONDITION.	Inspection age 5.				Inspection age 12.				Total.				Special Cases.		
	Boys.	Girls.	Total.	Per cent	Boys.	Girls.	Total.	Per cent	Boys.	Girls.	Total.	Per cent	B.	G.	Total.
<i>Teeth</i> :—															
Sound	†135	*130	265	7.2	86	76	162	4.8	221	206	427	6.0	..	..	..
Less than four decayed ..	413	357	770	20.9	603	629	1232	36.9	1016	986	2002	28.5	1	3	4
Four to six inclusive decayed ..	462	483	945	25.7	732	597	1329	39.8	1194	1080	2274	32.4	..	2	2
Over six decayed	868	817	1685	45.8	355	260	615	18.4	1223	1077	2300	32.8	9	10	19
Gingivitis	73	57	130	3.5	28	19	47	1.4	101	76	177	2.5	3	3	6
<i>Eyes</i> :—															
Sight	112	147	259	7.0	321	452	773	23.1	433	599	1032	14.7	3	9	12
Deaf	2	4	6	.16	31	59	90	2.6	33	63	96	1.3	1	4	5
<i>Prevalence of Rheumatism</i> ..	7	11	18	.4	44	52	96	2.8	51	63	114	1.6	..	5	5
<i>Heart and Circulation</i> :—															
No disease	1746	1656	3402	92.6	1720	1361	3081	92.2	3466	3017	6483	92.4	..	..	..
Organic disease	11	20	31	.8	39	34	73	2.1	50	54	104	1.4	3	5	8
Functional disease	53	49	102	2.7	60	53	113	3.3	113	102	215	3.0	4	3	7
Anaemia	72	73	145	3.9	54	122	176	5.2	126	195	321	4.5	7	24	31
Other defect	2	2	4	.1	6	2	8	.2	8	4	12	.17	..	..	..
<i>Lungs</i> :—															
No disease	1762	1691	3453	94.0	1705	1514	3219	96.4	3467	3205	6672	95.1	..	..	..
Chronic bronchitis and bronchial catarrh	97	85	182	4.9	34	16	50	1.4	131	101	232	3.3	2	5	7
Tuberculosis .. .. .	..	1	1	.02	1	..	1	.02	1	1	2	.02	1	..	1
Tuberculosis suspected ..	17	10	27	.7	31	29	60	1.7	48	39	87	1.2	14	9	23
Other disease	4	6	10	.2	5	3	8	.2	9	9	18	.2	3	2	5
<i>Nervous System</i> :—															
No disease	1860	1782	3642	99.1	1761	1551	3312	99.2	3621	3333	6954	99.2	..	..	..
Epilepsy (major or minor) ..	11	6	17	.4	4	3	7	.2	15	9	24	.3	2	2	4
Chorea	3	2	5	.13	6	3	9	.2	9	5	14	.19	2	1	3
Other disease	6	3	9	.2	5	5	10	.2	11	8	19	.27	1	2	3
<i>Skinniness</i> :—															
No disease	1781	1684	3465	94.3	1713	1499	3212	96.2	3494	3183	6677	95.2	..	..	..
Ringworm : body	1	5	6	.16	5	..	5	.1	6	5	11	.15	6	3	9
Ringworm : head	35	24	59	1.6	7	14	21	.6	42	38	80	1.1	55	33	88
Impetigo	27	29	56	1.5	11	12	23	.6	38	41	79	1.1	42	21	63
Cabies	5	8	13	.3	8	5	13	.3	13	13	26	.3	11	8	19
Other disease	34	48	82	2.1	35	34	69	2.0	69	82	151	2.1	26	30	56
<i>Knuckles</i> :—															
No disease	1863	1784	3647	99.2	1772	1559	3331	99.7	3635	3343	6978	99.5	..	..	..
Slight	15	8	23	.6	4	3	7	.2	19	11	30	.4	3	..	3
Marked	2	1	3	.08	..	..	..	..	2	1	3	.04	..	..	..
<i>Deformities</i> :—															
No deformity	1787	1721	3508	95.5	1671	1478	3149	94.3	3458	3199	6657	94.9	..	..	..
High Palate	49	51	100	2.7	61	52	113	3.3	110	103	213	3.0	1	1	2
Coliosis	15	6	21	.5	22	14	36	1.07	37	20	57	.8	2	..	2
Deformity from Infantile Paralysis	6	6	12	.3	6	5	11	.3	12	11	23	.3	1	1	2
Other deformities	28	11	39	1.06	21	13	34	1.01	49	24	73	1.0	1	4	5

† No particulars in 2 cases. * No particulars in 6 cases.

TABLE II.—RETURN SHOWING THE PHYSICAL CONDITION OF CHILDREN
INSPECTED—continued.

CONDITION.	Inspection age 5.				Inspection age 12.				Total.				Special Cases.		
	Boys.	Girls.	Total.	Per cent	Boys.	Girls.	Total.	Per cent	Boys.	Girls.	Total.	Per cent	B.	G.	Total.
<i>Tuberculosis, non-pulmonary :—</i>															
No disease	1879	1790	3669	99.9	1770	1555	3325	99.6	3649	3345	6994	99.7	..	..	..
Glandular	1	2	3	.08	3	2	5	.1	4	4	8	.1	2	1	3
Bones and Joints .. .. .	..	1	1	.02	2	5	7	.2	2	6	8	.1	1	..	1
Other Forms .. .. .	..	..	..	..	2	..	2	.05	2	..	2	.02	1	..	1
<i>Speech :—</i>															
Not defective	1766	1725	3491	95.0	1734	1547	3281	98.2	3500	3272	6772	96.6	..	..	..
Defective Articulation	101	61	162	4.4	15	9	24	.7	116	70	186	2.6	23	14	37
Stammering	13	7	20	.5	27	6	33	.9	40	13	53	.7	..	1	1
<i>Mental Condition :—</i>															
Normal	1830	1766	3596	97.9	1699	1520	3219	96.4	3529	3286	6815	97.2	..	..	..
Dull or backward	45	25	70	1.9	70	38	108	3.2	115	63	178	2.5	4	2	6
Mentally defective (all grades)	5	2	7	.19	7	4	11	.3	12	6	18	.2	3	3	6
<i>Other Defective Conditions :—</i>															
Slight	258	179	437	11.9	70	143	213	6.3	328	322	650	9.2	27	36	66
Bad	25	11	36	.9	7	14	21	.6	32	25	57	.8	8	14	22
<i>Vision :—</i>															
6/6 each eye (normal vision)	62	44	106	..	†1006	*771	1777	53.2	1068	815	1883	..	13	10	23
6/6 R.	15	15	30	..	154	147	301	9.0	169	162	331	..	12	7	19
L.	11	13	24	..	108	93	201	6.0	119	106	225	..	13	6	19
6/9 R.	74	66	140	..	454	451	905	27.1	528	517	1045	..	62	86	148
L.	76	61	137	..	496	509	1005	30.1	572	570	1142	..	52	82	134
6/12 R.	1	6	7	..	40	51	91	2.7	41	57	98	..	26	47	73
L.	4	8	12	..	41	53	94	2.8	45	61	106	..	33	46	79
6/18 R.	8	2	10	..	51	63	114	3.4	59	65	124	..	35	30	65
L.	4	4	8	..	54	51	105	3.1	58	55	113	..	35	41	76
6/24 R.	1	2	3	..	28	26	54	1.6	29	28	57	..	18	28	46
L.	4	2	6	..	33	24	57	1.7	37	26	63	..	19	17	36
6/36 R.	1	1	2	..	24	27	51	1.5	25	28	53	..	7	17	24
L. .. .. .	..	1	1	..	16	30	46	1.3	16	31	47	..	9	20	29
6/60 R. .. .. .	..	..	..	..	12	13	25	.7	12	13	25	..	8	8	16
L.	2	2	4	..	10	15	25	.7	12	17	29	..	7	12	19
6/0 R.	2	..	2	..	5	9	14	.4	7	9	16	..	3	5	8
L.	1	1	2	..	10	12	22	.6	11	13	24	..	3	4	7
<i>Children with Defective Eyesight requiring Treatment ..</i>	18	16	34	..	243	296	539	16.1	261	312	573	..	140	186	326
<i>Strabismus :—</i>															
Slight	35	52	87	..	30	23	53	1.5	65	75	140	..	19	11	30
Bad { Convergent { R.	9	7	16	..	7	2	9	.2	16	9	25	..	4	3	7
L.	16	13	29	..	9	7	16	.4	25	20	45	..	8	6	14
Alt.	5	5	10	..	3	..	3	.08	8	5	13	..	2	3	5
Divergent { R.	1	1	2	..	..	6	6	.17	1	7	8	..	1	..	1
L.	3	3	6	..	2	2	4	.11	5	5	10	..	..	3	3

† No particulars in 2 cases. * No particulars in 4 cases.

TABLE II.—RETURN SHOWING THE PHYSICAL CONDITION OF CHILDREN
INSPECTED—continued.

CONDITION.	Inspection age 5.				Inspection age 12.				Total.				Special Cases.		
	Boys.	Girls.	Total.	Per cent	Boys.	Girls.	Total.	Per cent	Boys.	Girls.	Total.	Per cent	B.	G.	Total.
<i>Hearing (whisper) :—</i>															
10 feet each ear (normal hearing)	1826	1756	3582	97.5	1759	1546	3305	99.0	3585	3302	6887	98.2	..	3	3
10 feet R.	22	12	34	.9	3	4	7	.2	25	16	41	.5	1	3	4
L.	18	10	28	.7	8	8	16	.4	26	18	44	.6	1	1	2
10 feet R.	28	19	47	1.2	9	8	17	.5	37	27	64	.9	1	5	6
L.	23	18	41	1.1	5	7	12	.3	28	25	53	.7	2	3	5
15 feet R.	3	5	8	.2	4	4	8	.2	7	9	16	.2	1	..	1
L.	12	8	20	.5	1	1	2	.05	13	9	22	.3	1	5	6
Less than 5 feet R.	1	1	2	.05	1	..	1	.02	2	1	3	.04	1	4	5
" " L.	1	1	2	.05	3	..	3	.08	4	1	5	.07	..	3	3
Children with Deafness requiring Treatment	3	2	5	.13	3	2	5	.14	6	4	10	.1	2	5	7

Of the children systematically examined 17.3 per cent. were suffering from defects requiring medical attention. The corresponding percentages were 16.3 in 1915, 18.9 in 1914, and 19.5 in 1913.

Nearly 60 per cent. of the cases brought forward by the teachers, and 5.7 per cent. of the children under 5 were found to require medical attention.

These percentages are apart from defects of teeth.

Statistics with regard to prevalence of infectious disease amongst the children have not been got out this year, but the material is available for future investigation if wanted.

EYESIGHT.—This is the fourth year that the eye defects have been analysed in the full manner shown on Table II.

It is only at the age of 12 that the children are systematically examined for eyesight. At this age it will be observed that 53.2 per cent. have normal vision and that a further 15 per cent. have normal vision in one eye, giving a total of 68.2 per cent. who have normal vision in at least one eye. The remaining 31.8 per cent. have defect of vision of both eyes, but of these a considerable proportion have only the slight defect represented by $\frac{6}{9}$ vision.

The preliminary examination by the teachers has continued to be most useful in the absence of an intermediate inspection.

Of the children examined at the age of 12, 539 or 16.1 per cent. required medical treatment. The corresponding figure in 1915 was 15.2, and in 1914, 18.7.

The children age 5 were not systematically inspected but 34 were found to have defective vision requiring treatment.

Amongst the cases brought to the notice of the Inspectors by the teachers there were no less than 186 with serious defective vision.

Amongst the extra cases and children under 5 years of age there were 60 with squint and 55 with external eye disease.

Of the total children systematically examined 241 were suffering from squint and 189 from external eye disease.

The excess of defects amongst girls was again marked.

DEFECTS OF NOSE AND THROAT.—The defects of the nose and throat were almost entirely obstructive conditions due to adenoids and enlarged tonsils. Of 7,011 children examined 107 or 1.5 per cent. were suffering from adenoids and 336 or 4.7 per cent. from enlarged tonsils sufficiently bad to require medical treatment. Amongst the "special cases" there were 31 of adenoids and 65 cases of enlarged tonsils requiring treatment. In all, there were therefore 138 cases of adenoids and 401 cases of enlarged tonsils requiring treatment. In addition there were a large number of children who were suffering from these defects in a minor degree (see table). and to whom instructions were given particularly with regard to breathing exercises.

The percentages of children suffering from adenoids sufficiently serious to require medical treatment amongst those coming up for medical examination during the last five years were :—

Year.	Age 5.	Age 12.
1912	3.7	2.9
1913	3.2	2.2
1914	2.8	1.6
1915	2.5	1.3
1916	2.0	.9

The decrease of the cases of adenoids and enlarged tonsils noticed in previous years has continued. Although it would be rash to assert positively that there has been a real decrease, the evidence each year becomes stronger.

The causation of adenoids has been discussed at considerable length in previous reports. There seems much to support the idea that adenoids are an overgrowth of glandular tissue brought about by the irritation of frequent infection or even by the irritation of inorganic dust the overgrowth producing much more serious symptoms whenever the jaws and palate are unduly narrow.

Efforts have been directed to the prevention as well as cure.

TEETH.—The statistics with regard to the decay of teeth have not been got out in the elaborate manner of previous years. Particulars will be found in Table II. The inclusion of the Borough of Wenlock has slightly lowered the percentage of caries in this year's figures.

In my report for 1910 I said :—"*In my opinion more improvement in public health can be obtained by efforts to abolish these conditions (dental caries and oral sepsis) than in any other line of action.* It is a matter affecting not only Education Authorities but all bodies responsible in any way for the public health and should be looked upon as such."

"The object we should strive after is to arrest this development of caries in the present generation so far as possible and to see that the children of the next generation are brought up in such a way that caries will only develop as an exceptional and abnormal condition."

Further experience has strongly confirmed the opinion here expressed.

For a description of the measures taken for the prevention of dental caries and for the rules to be observed reference must be made to pages 31 and 32 of the Annual Report for 1914.

Much is expected from the system of health visiting that has been established and is being extended.

There are no dental clinics in the County at present. This is one of the first matters that should receive attention after the war.

TUBERCULOSIS. *Phthisis*.—Out of 7,011 children examined, only 2 or .02 per cent. were diagnosed as suffering from phthisis. In addition there were 87 or 1.2 per cent. who showed signs or symptoms pointing to phthisis in an early stage, but the symptoms were not sufficiently definite to allow of a diagnosis being made. Amongst the extra cases and the children under 5 years of age, there was one definitely diagnosed and 23 suspected.

Forty-five children were referred to the Tuberculosis Officer for examination. 10 of these were definitely diagnosed as phthisis; 27 as suspicious of phthisis; 3 as suffering from tuberculosis of bones and glands; and 5 were reported as showing no signs of tuberculosis.

The Medical Inspectors are now supplied with lists of children from phthisis houses. Under this arrangement 235 children were referred for examination. Of these 50 had left school or were absent at the inspection, 13 were below school age. One hundred and seventy-two children were examined; 19 were suspicious of consumption, and in 153 there were no physical signs.

The cases from previous years have been kept under observation.

Sixteen children of school age, belonging to the Education County, were treated in the County Sanatorium during the year.

Other Forms of Tuberculosis.—Eighteen cases were found amongst the children systematically examined and 5 amongst the extra cases.

Seventeen children of school age belonging to this County, suffering from tuberculosis other than phthisis, were treated during the year in the Salop Convalescent and Surgical Home, Baschurch. This does not include cases from the Borough of Shrewsbury.

The question of open-air schools has not yet been considered.

DISEASES OF HEART AND RHEUMATISM.—Amongst the children systematically examined 104 were found to have organic disease of the heart, and 215 to be suffering from functional and probably temporary derangements. In 114 children there was evidence of rheumatism.

Amongst the extra cases and children under 5, there were 8 cases of organic disease and 7 with evidence of functional derangement.

For remarks on the cause and prevention of Rheumatism, reference must be made to page 34 of the report for 1914.

The provision of properly heated cloak-rooms and the provision of slippers in certain schools should have consideration in the near future.

RINGWORM.—Of the children systematically examined 80 or 1.1 per cent. were found to be suffering from ringworm of the scalp.

Amongst the extra cases and those under 5 years there were 88 cases of ringworm of the scalp.

In addition, 270 cases have been notified by the teachers. These were not usually based on medical opinion.

Examination of hairs was made by the Medical Inspectors in 529 cases—281 positive and 248 negative.

Hairs were submitted to Birmingham University, with 42 positive results and 91 negative results.

When authorised by the School Medical Officer, children suffering from ringworm are now admitted to school, if the parent undertakes to carry out certain stringent precautions. It is also an essential condition of admission that the teacher shall undertake to see that the precautions are carried out.

It is not anticipated that this procedure will increase the spread of ringworm in schools, and in many instances it will certainly bring about a better treatment of the cases.

X-ray treatment should be provided for these cases as soon as possible after the end of the war.

VERMINOUS HEADS.—The figures with regard to this condition as found at the Medical Inspection are given in Table II.

There is evidence that a higher standard of cleanliness is being brought about, although the statistics do not show any considerable improvement.

Where there are school nurses the conditions are certainly improving.

The instructions now to the school nurses are to examine the heads of the children each term, that is three times a year, and to follow up the verminous children so as to get them clean before the end of the term. The inspection in the following term is to be begun *de novo*. If instructions had been carried out there would have been about 590 primary inspections and about 1,700 following up inspections in the year. So far as the returns show, there appear to have been 574 primary inspections and 1,460 following up inspections. At the primary inspections 46,519 children were examined and 7,272 were found verminous or a percentage of 15.63.

The percentage of verminous conditions was 15.63 at the examinations by the nurses, compared with 25.3 at the medical inspection. This large difference to some extent is due to the fact that the schools for which there is nursing provision are mostly the country schools and the children consequently cleaner. It may indicate that already the efforts of the nurses have had a considerable effect, but it is probably principally due to the personal factor of the examiners.

The following figures show the results of the examinations of heads by school nurses. It must be remembered that on the second and subsequent inspections only those found verminous or absent at previous inspections are examined.

First Inspection.—Number examined 46,519. Verminous 7,272.

Subsequent Inspections.

	2nd inspection.	3rd inspection.	4th inspection.	5th inspection.	6th inspection.
Verminous	4421	2950	1678	1158	641
Absent	864	721	546	379	177

In interpreting these figures it must be borne in mind that in some schools a third inspection was not made and in many there was no fourth or fifth inspection, so that the apparent decrease of verminous conditions is greater than the real decrease.

The large number of absent children is a striking feature, and indicates a considerable laxity in school attendance.

SCABIES.—Dr. Boyes says: "In most cases of Scabies the onset of the disease appeared to coincide with the visit of a relative from the army. In a few cases the mothers of the children had been undertaking soldiers' washing from the adjoining camp. Generally all the members of the family attending school were affected, but there was little evidence of the spread of infection in the school. Absence from school was unduly prolonged in many cases; as although some form of medical treatment was persisted in, very little attention was directed to the thorough cleansing of the clothing."

MENTALLY DEFECTIVE CHILDREN.—In the routine inspection 18 or .2 per cent. of the children were found to be mentally defective, and the attention of the inspectors was called to 6 other mentally defective children by the teachers.

NUTRITION.—The percentage of children with nutrition below normal was 8.7, compared with 11.1 in 1915. If these figures accurately represent the facts, they indicate an improvement of nutrition probably due to higher war wages.

Dr. Boyes is of opinion that there was a general improvement in nutrition of the children, and that this was particularly marked amongst the poorest classes in the towns near the military camps. There has been a certain amount of employment of boys, ages 12 and 13, on farms. On the effect of this work on their nutrition, Dr. Boyes says:—“Where the boys live at the farm their nutrition is on the whole improved, but it is otherwise when they have their food at home. In some cases, owing to symptoms of overstrain, the farmer was notified that the boy should be given lighter work.”

The effect of the Daylight Saving Act on the health of school children is a matter on which there may be differences of opinion. It is obvious that in so far as the Act has brought about the more general utilisation of daylight hours for living and dark hours for sleeping, its effect must be good. The amount of time spent in the open air must have been much greater. The one objection raised, and it is a serious one if it is generally applicable, is that it has reduced the amount of sleep of the children. On this point Dr. Boyes says:—“The general effect in this County of the Daylight Saving Act has been that the sleep of the majority of the children was reduced by an hour. This result was more marked in country districts, partly owing to the fact that the working hours of many of the farm labourers were not regulated by Summer time.”

In those schools where there are nurses, all cases of malnutrition not requiring medical treatment are reported to the nurse, in order that she may give advice on food, sleep and general domestic hygiene. The cases are usually kept under observation and weighed at intervals. The nurse can then advise medical help before the next inspection if she thinks it desirable. In the rare cases where there is a definite deficiency of food, efforts are made through private or public sources to remedy this.

The advantages of the teacher being present at the mid-day meal were pointed out in the report for 1914. The suggestion has been acted on to a considerable extent.

TABLE IV.—TREATMENT OF DEFECTS OF CHILDREN DURING 1916.

CONDITION.	No. of defects found for which Treatment was considered necessary.			No. of defects for which no report is available	No. of defects treated.	Results of Treatment.				No. of defects not treated.	Percentage of defects treated.
	From previous year.	New.	Total.			Re-medied	Im-proved.	Un-changed	Un-known.		
Eye and Throat ..	407	414	821	205	212	41	49	15	107	404	25.8
External Eye Disease ..	6	13	19	5	9	1	6	1	1	5	47.3
Internal Eye Disease ..	50	35	85	17	42	7	22	3	10	26	49.4
Deafness ..	33	174	207	24	102	87	12	1	2	81	49.2
Heart and Circulation ..	8	25	33	5	20	..	18	1	1	8	60.6
Stomach ..	11	10	21	4	12	..	8	..	4	5	57.1
Nervous System ..	5	9	14	3	6	2	2	..	2	5	42.8
.. ..	99	163	262	67	176	103	28	6	39	19	67.1
Defects ..	..	..	..	..	..	..	..	..	..	..	..
Strabismus ..	21	25	46	9	15	3	6	1	5	22	32.6
Tuberculosis—Non-pulmonary ..	1	2	3	..	3	..	2	..	1	..	100.0
..
General Condition ..	..	..	..	..	..	..	..	..	..	..	..
Deafness and Squint ..	671	820	1491	283	609	58	227	26	*298	599	40.8
.. ..	4	10	14	5	4	1	2	..	1	5	28.5
.. ..	52	98	150	58	57	5	27	2	23	35	38.0
Total ..	1368	1798	3166	685	1267	308	409	56	494	1214	40.0

* 204 of these have glasses.

It is obvious that where the schools are only inspected once a year, no accurate report can be made as to the result of the treatment of the "new" cases. Where there are no nurses, no report can be made, and only in a portion of the cases can the report of the nurse be accepted as showing the result of the treatment.

In a large number of the cases, it has consequently been necessary to report the *result* of treatment as "unknown" although one knows that the best available treatment has been obtained. For example out of the 298 cases of defect of vision classed "result of treatment unknown," about 204 were known to have been examined by an oculist, and glasses obtained.

The provision for treatment made by the County Council and the methods employed for following up the cases so as to obtain treatment are described on page 42 of the Annual Report for 1914.

In my report for 1915 I said:—"During the year the School Medical Officer presented a report recommending the establishment of centres for the treatment of eye and throat defects at Oswestry, Market Drayton, Bridgnorth, and Ludlow. It was decided to establish centres for eye defects in these towns, but owing to circumstances connected with the war, it was not found possible to carry out the scheme. The establishment of throat centres was postponed."

Arrangements were made in the early part of the year for the establishment of an eye centre at Oswestry and Dr. Girdlestone was appointed to carry out the work. The arrangements were not put into operation as Dr. Girdlestone shortly afterwards left on military duties. Later on in the year, Dr. Melvin was engaged to carry on the work of the centre in Dr. Girdlestone's absence. The centre was opened on the 29th September.

Treatment received at the Eye, Ear and Throat Hospital for Shropshire and Wales, Shrewsbury, during the year 1915, on Recommendations supplied by the County Council.—Two Hundred and eighty-four letters of recommendation were supplied and all of them have been used. Before a recommendation was supplied the School Medical Officer certified that the case was a suitable one for treatment at the hospital, and the Managers of the School, that the parents were unable to afford treatment.

The results of treatment, so far as re-inspection has gone, are very satisfactory.

Of the 284 children who have had treatment, 229 were for eye defects, 48 for throat defects, and 7 for ear defects.

EYE DEFECTS.—Fifty-three of the 229 children have been re-inspected :—

45 have obtained glasses with satisfactory results ;

2 glasses ordered, not obtained ;

6 had treatment, told to return to hospital, but did not go.

One hundred and seventy-six have not yet been re-inspected, but information shows that :—

146 have obtained glasses ;

2 have had glasses prescribed, but have refused to get them ;

28 other treatment than glasses prescribed.

THROAT DEFECTS.—Sixteen of the 48 children have been re-inspected. All these have been operated on with satisfactory results. Of the 31 not yet re-inspected, information shows that 31 have been operated on. Concerning one case no information has been received.

EAR DEFECTS.—The 7 cases have received treatment ; 1 case remedied ; 1 improved ; the results of 5 are unknown.

Treatment at Oswestry Eye Centre (opened 29th September, 1916).—Eight cases were treated up to the end of the year. All of them have obtained glasses. Five are reported as remedied and three as improved.

Work of the Nurses in bringing about Treatment.—Every case found by the Medical Inspector to require medical or other treatment has been referred to the nurse to follow up where a nurse is available. In most districts the nurse has followed up the cases satisfactorily, but in a few districts the following up was very incomplete. Of 2,233 cases referred to the nurses during the year, 2,024 were followed up more or less satisfactorily. In 209 cases no visit was paid.

Treatment in the Borough of Wenlock.—The facilities for treatment are much greater in the Borough of Wenlock than in the rest of the County. This is due to the help very generously given by the Lady Forester Charity Trust, who not only allow their nurses to undertake school nursing but provide for the treatment of defects of eyes, ears, throat and teeth.

The Broseley Hospital has been fitted up with rooms for this work. Defects of eyes, ears, throat and nose are treated by Mr. Russ Wood. The dental work is undertaken by Mr. Mugford, who visits the hospital as required.

The nurses have paid a large number of visits to the homes of the children, for the purpose of following up those requiring medical treatment and for the verminous conditions.

Glasses are obtained by the Trust in all cases where prescribed, and supplied to the parents who are expected to pay a part or the whole of the cost where they can afford it.

Mr. T. C. Shingler, the Secretary to the Trust, has taken a very active interest in supervising and following up the treatment of the cases, and the Matrons of the Broseley and Wenlock Hospitals and the Nurses have co-operated heartily in this work.

The scheme for dental treatment referred to in my previous reports has not so far been adopted owing to objections on the part of the Charity Commissioners.

Under the present arrangements, 138 children were referred for treatment by the dentist and 80 have received treatment. Seventy-eight temporary teeth and 43 permanent teeth were extracted and 18 teeth filled.

ACTION TAKEN TO DETECT AND PREVENT INFECTIOUS DISEASES INCLUDING REFERENCE TO ACTION UNDER ARTICLES 45 (b), 53 (b), AND 57 OF THE CODE OF 1909.

A description of the scheme of notification of infectious disease from schools and of the measures taken to prevent the spread of infectious disease was given on pages 44, 45 and 46 of the report for 1914.

A special investigation into the spread of diphtheria has been made at Ifton Heath School, and 79 swabs have been submitted by the school medical staff.

The school nurses have on many occasions rendered valuable help in taking swabs from doubtful sore throats or contacts during the year.

Under Article 53 (b) 1,181 children have been excluded from school for infectious disease and other conditions:—

138	on account of	impetigo.
270	„	ringworm of scalp.
14	„	ringworm of body.
39	„	scabies.
629	„	verminous conditions
6	„	scarlet fever.
49	„	suspected phthisis.
13	„	chicken-pox.
6	„	mumps.
9	„	bronchitis.
1	„	tonsillitis.
7	„	various causes.

School closure has been effected entirely under Article 45 by the School Medical Officer, either on information obtained direct from the school, or on the advice of the District Medical Officer of Health. Under this Article 162 schools were closed for the following reasons:— 24 for measles, 43 for whooping cough, 11 for scarlet fever, 2 for diphtheria, 10 for chicken-pox, 29 for mumps, 41 for influenza, and 2 for other causes.

REVIEW OF THE METHODS ADOPTED AND THE ADEQUACY OF SUCH METHODS FOR DEALING WITH BLIND, DEAF, MENTALLY OR PHYSICALLY DEFECTIVE AND EPILEPTIC CHILDREN UNDER THE ACTS OF 1893 AND 1899.

A numerical return of all exceptional children in the area was made in the report for 1914. The information is not available for this report.

One blind child, one mentally defective, one physically defective, and 3 deaf and dumb children were sent to special schools. One epileptic child and one blind child are awaiting vacancies.

TEACHING OF HYGIENE, PHYSICAL EXERCISES, OPEN AIR SCHOOLS

For the general remarks on these subjects reference must be made to the 1914 report, pages 49 and 50.

Unfortunately no teachers were sent to the Summer Vacation Course of physical training and no classes for the training of teachers were held in the County. No doubt there are great difficulties at the present time but on the other hand the importance of educating teachers so as to fit them for carrying out the physical training of the children is very great. The difficulties should be faced and unless it is quite impracticable, the training of teachers in this most important matter should be taken in hand again by holding classes for teachers in various parts of the County.

This is a matter in which it will be difficult to make up later for delay at the present time.

The question of the provision of open air schools has not been dealt with. Phthisical children are sent to the County Sanatorium where a certain amount of education is provided, and other cases of tuberculosis have been sent to Baschurch Convalescent Home.

At the Baschurch Home 50 children of school age belonging to the Education County were treated during the year. The children were treated for the following conditions:—

Tuberculous Bones and Joints.	Rickets.	Deformities from Poliomyelitis.
15	3	5
Scoliosis.	Other Deformities.	Other Diseases.
7	9	11

An application has been made to the County Council by the Shropshire Surgical Home, Baschurch, for support for the treatment of tuberculous children. It is possible that as a result an open air school may be established.

Teachers should be encouraged to hold open air classes when the weather permits where there is a playground suitable for the purpose. A covered playing shed, or the shelter of a spreading tree will frequently provide all the protection that is required. The provision of a suitable shed in connection with the schools, where otherwise open air teaching is impossible, is worth consideration.

It is most important, however, that the ordinary schoolrooms should be so constructed, that in suitable weather by throwing all the windows open they become practically open air classrooms. This is the important aim that should be constantly kept in view.

